SUMMARY

Claims 1-19 have been rejected in the above-identified Office Action. Claims 1, 2, 11 and 17 have been amended and claim 18 has been cancelled. Accordingly, claims 1-17 and 19 are pending in the application. Reconsideration of the application is respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112

In "Claim Rejections – 35 USC § 112," item 4 on page 2 of the above-identified Office Action, claims 1-16 have been rejected as failing to comply with the written description requirement of 35 USC § 112, para 1. The Examiner states that the "strongly collision free deterministic identifier" in claim 1-16 and a method of generating the identifier do not appear to be described within the disclosure.

However, on page 6 lines 15-16 of the instant specification, the "strongly collision free" is explained by way of an example. The passage states that, for a strongly collision free function $h(X)$, it is very hard to find an X1 and an X2 such that $h(X1)=h(X2)$. And on page 6 lines 26-29 of the instant specification, the hash algorithm is described as one of the "strongly collision free deterministic identifying algorithms" which generates data identifiers such hash values. Therefore, based on the disclosure set forth, people skilled in the art would know that the "strongly collision free deterministric identifier" may be an identifier of data which is generated by a strongly collision free function, such as a hash algorithm. Applicants respectfully submit that claims 1-16 meet the written description requirement of 35 USC § 112, para 1.

In "Claim Rejections – 35 USC § 112," item 6 on page 3 of the above-identified Office Action, claims 1-19 have been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention.

The Examiner stated that "a strongly collision free deterministic identifier" in claims 1-16 is vague and/or not clear. For the reasons given above, Applicants respectfully submit that the meaning of "a strongly collision free deterministic identifer" is clearly conveyed.

The Examiner also rejects claim 17 and its dependent claims as containing vague claim language. Applicants have amended claim 17 to read, in part:

> "determine <u>whether</u> said identifier correspond<u>s</u> to backup data already on the server apparatus; and
> only if said identifier does not correspond to previously backed up data on the server apparatus, receiving said data from said client device."

Applicants believe that the meaning of claim 17 is clear after the amendment, which involves two operations: the server determines if it already has the data to be backed up or not; if not, it receives the data from the client device. The determination is made based on an identifier of the data. Also, claim 19, which depends from claim 17, should be definite and clear too, for the same reasons.

The Examiner also states that the type of "identifier" used in claim 17 and its dependent claims is unclear, considering those different identifiers mentioned in the specification. In response, Applicants have amended claim 17, obviating the Examiner's rejection.

Finally, the Examiner rejects 1, 11, 12 and 16 and their dependent claims for vagueness. More specifically, the Examiner believes that the claim language "only if said back up server indicates that said data is not already available to said back up server, send said data to said backup server" is vague. First, there is no such language in claims 11 and 16. Second, Applicants repectfully traverse that claims 1, 12 and their dependent claims are vague. The feature "...said data is not already available to said back up server" may comprise the situation that the data is not stored at the server and the data cannot be accessed by the server remotely either. Under such situation, the wireless computing apparatus (device) will send said data to the backup server. So, Applicants submit that the meaning of claims 1, 12 and their dependent claims are clearly conveyed.

Therefore, the Applicants believe that the pending claims 1-17 and 19 fulfill the requirements of 35 USC § 112.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In "Claim Rejections – 35 USC § 103," item 9 on pages 5 of the above-identified Office Action, claim 1 has been rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application Publication No. 2002/0156921 A1 (hereinafter Dutta).

Applicants respectfully submit that the rejection of claim 18 is obviated by its cancellation.

The rejection has been noted and claim 1 has been amended. As amended, claim 1 claims a wireless computing apparatus having:

a processor; and

a memory comprising computer executable instructions which, when executed are operative to:

designate data on the wireless computing apparatus to backup;

generate a strongly collision free deterministic identifier for said data;

communicate said strongly collision free deterministic identifier to a backup server to enable said backup server to determine whether said data is already available to said backup server or not; and

only if said backup server indicates that said data is not already available to said backup server, send said data to said backup server.

Thus, read as a whole, the wireless computing apparatus in claim 1 is directed towards a novel wireless apparatus configured to enable its data to be backed up more efficiently. The efficiency is achieved in part through a conditional provision of the data to be backed up to a backup server, and in part through the use of a strongly collision free deterministic identifier to identify the data to be backed up and to enable the determination that if the data is available to the backup server already.

Dutta, in contrast, describes a wireless device capable of backing up its data to a server via a proxy, with the backup being initiated by the server by pushing a request to the wireliess device via the proxy. Also, the backup is initiated in response to an indication that the wireless device has been powered on or in response to a determination that a predertermined amount of time has elapsed since the last back up was performed. The backup is automatic and users of the wireless device are even not aware of it.

As Examiner admits in the above-identified Office Action, Dutta does not teach that "only if said backup server indicates that said data is not already available to said backup server, send said data to said backup server." However, Examiner argues that, although Dutta does not teach the above feature in claim 1, it would be suggested to one of ordinary skill in the art by the predefined conditions for the backup in Dutta. Applicants repectfully disagree.

The predefined conditions mentioned by Examiner can only be found in para. [0045] of Dutta. There, Dutta states that "the data backup server 502 initiates a backup operation may be set at predetermined intervals or maybe performed any time the data backup server 502 receives notification that client 506 has been powered on." These predetermined conditions serve Dutta's purpose of backing up data from the wireless device to the server before the wireless device is discharged. Once the condition is satisfied, the backup starts, and there is no suggestion to a person of ordinary skilled in the art to modify Dutta such that that the wireless device would actually wireless transmit the data to be backed up from the wireless device to the back up server, only if the backup server does not have access to the data.

In contrast, the purpose of claim 1 is to improve the efficiency of wireless communication for data backup,which is known to have bandwidth constraint and intermittment connection loss issues etc, by avoiding repeated or redundant backup of data the backup server already has. As explained in the specification, as an example, most wireless device, such as mobile phones, have common operating system, when backing up the mobile devices of hundreds or thousands of subscriber, it would be inefficient to transmit a copy of the operating system from each mobile device. As long as the back up server has a copy from one mobile device, it can be deemed as already effectively received from the other

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subscriber mobile device, thus it is not necessary for these other mobile devices to transmit copies of their operating system to the server, which would consume valuable and constrained bandwidth.

Futhermore, Applicants repesctfully submit that Dutta fails to teach or suggest the "strongly collision free deterministic identifier" for <u>data</u> in claim 1. What Dutta disclosed in [0042]-[0045] is a service loading content type (SL) which is sent from the server to the wireless device via the proxy, identifying an certain <u>application</u> in order to transfer requested data to the server. Noticably, the SL is an identifier of application rather than data and it is not collision free at all. So, the disclosure of SL in Dutta does not indicate or suggest "generate a strongly collision free deterministic identifier for said data" and "communicate said strongly collision free deterministic identifier to a backup server" as claimed in claim 1.

To establish prima facie obviousness, the Examiner must show where in the combined references support may be found, in the form of teachings or suggestions, for each limitation. Applicants respectfully submit that Examiner has not done so.

Thus, for at least these reasons, Applicants submit that claim 1 is non-obvious, and therefore patenable over Dutta under 35 USC §103. Claims 2-10 depend from claim 1, incorporating its recitations. Therefore, for at least the same reasons as set forth for claim 1, Applicants submit that claims 2-10 are also patentable over Dutta under 35 USC §103.

Claims 12 and 17 contain in substance the above discussed recitations as claim 1. Therefore, for at least the same reasons as set forth for claim 1, Applicants submit that claims 12 and 17 are also patentable over Dutta under 35 USC §103. Claims 13-15 and 19 depend from claim 12 or 17 respecitvely, incorporating recitations of either claim 12 or 17. Therefore, for at least the same reasons as set forth for claim 1, Applicants submit that claims 13-15 and 19 are also patentable over Dutta under 35 USC §103.

Claims 11 and 16 recite data restoration operations which contain, in substance, the above discussed recitations of claim 1, except that the direction of communication is reversed such that the identifiers and data are transmitted from the server to the wireless computing

apparatus. Therefore, for at least the same reasons as set forth for claim 1, Applicants submit that claims 11 and 16 are also patentable over Dutta under 35 USC §103.

CONCLUSION

In view of the foregoing, reconsideration and allowance of claims 1-17 and 19 are solicited. If the Examiner has any questions concerning the present paper, the Examiner is kindly requested to contact the undersigned at (206) 407-1513. If any fees are due in connection with filing this paper, the Commissioner is authorized to charge the Deposit Account of Schwabe, Williamson and Wyatt, P.C., No. 50-0393.

Respectfully submitted,
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Date: __December 21, 2007__   by: __/Robert C. Peck/_____
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